**RESOURCE SHARING**
**STATE BY STATE STATUS REPORT**
**April 2000 Update**

**Question: "Does your State accommodate fiber optics / wireless communications on Interstate or other freeways?"**

| FHWA Resource Center/ State | Fiber Optics | | Wireless Telecommunications | | Comments |
|---|---|---|---|---|---|
| | Interstate | Other Freeways | Interstate | Other Freeways | |
| **Eastern** | | | | | |
| **Connecticut** | Yes | No | Soon | No | Fiber Optics -- For State purposes only -- Incident Management System (IMS) and Intelligent Transportation System (ITS). No resource sharing involved. Wireless -- A project has been authorized for State purposes only -- Digital Highway Advisory Radio (HAR) at six locations. No resource sharing will be involved. |
| **Maine** | Yes | Yes | No | No | Fiber Optics -- No resource sharing. |
| **Massachusetts** | Yes | Yes | Yes | Yes | Fiber Optics - State gets lines in return for accommodation Wireless - State gets some wireless facilities in return. |
| **New Hampshire** | No | Yes | No | No | Fiber Optics -- A short line was placed from the FAA center in Nashua to a nearby location along Route 3. No resource sharing was involved. |
| **New Jersey** | Yes | Yes | Yes | Yes | Fiber Optics -- For State purposes only -- computerized signal systems, ***advanced traffic management systems, video, etc***. No resource sharing involved. Wireless -- 5 installations have been approved on the Interstate and other NHS routes with additional proposed installations being considered. Cash compensation is involved. DO has assisted NJDOT in establishing wireless guide-lines and procedures for installation, approval of sites, approval of installation. |
| **New York** | Yes | Yes | Yes | Yes | Fiber Optics -- On NY State Thruway. NYSDOT has continuing RFP for fiber projects on their ROW. Wireless -- All state assets, including NYSDOT ROW being marketed under a site manager services agreement. |

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| **Puerto Rico** | No | No | No | No | |
| **Rhode Island** | No | No | Yes | Yes | |
| **Vermont** | No | No | No | No | |
| **Delaware** | No | No | No | No | |
| **District of Columbia** | No | No | No | No | |
| **Maryland** | Yes | Yes | Yes | Yes | Fiber Optics -- On most Interstates in central MD. Approximately 370 total miles. Wireless Telecommunications: Ten towers have been installed along controlled access facilities, many near or within interchanges. Towers accommodate multiple providers - as many as five providers per structure. Additional tower sites are under consideration. |
| **Pennsylvania** | No | No | No | No | Resource sharing not permitted by state law. On controlled access ROW. Turnpike is negotiating for joint use of fiber and wireless with private company. |
| **Virginia** | No | No | Yes | Yes | Wireline - No commercial installations yet, pending agreements for substantial installation. ITS installed at state expense. Wireless - a number of installations with more to follow. |
| **West Virginia** | No activity as yet | | | | Governor's Committee meetings only. |
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| **Southern** | | | | | |
| **Alabama** | No | No | No | No | ALDOT has appointed a committee to evaluate all aspects of placing both fiber & wireless facilities on Alabama freeways. |

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| **Florida** | No | No | No | No | Fiber Optics -- A first RFP went out in October 1999 and the Department received no proposals. A second RFP went out March 17, 2000 and a pre proposal meeting held April 5, 2000. The second RFP allows proposers to submit proposals on segments of the States 2000 mile plus of limited access rights-of-way. Wireless -- An agreement is in place with Lodestar Towers, Inc. for use of the State's limited access rights-of-way, maintenance yards and existing facilities for the erection and use of towers for a % of the gross revenues. |
| **Georgia** | Yes | No | No | No | Fiber Optics: For State purposes only. No resource sharing involved. |
| **Kentucky** | Yes | Yes | No | No | Fiber Optics: For State purposes only. No resource sharing involved. |
| **Mississippi** | Yes | Yes | No | No | Fiber Optics: One temporary Interstate installation and several installations on other freeways. No compensation. No resource sharing involved. |
| **North Carolina** | No | Yes | No | No | Fiber Optics -- Some installations on partial controlled or limited access routes. No compensation received. No resource sharing involved. NC officials do not believe resource sharing is worth pursuing at this time. |
| **South Carolina** | Yes | No | No | No | Fiber Optics -- Cable crossing on I-526 bridge over the Cooper River in Charleston in exchange for fibers for use in operation of SCDOT's Fog Detection and Warning System. SCDOT has established a committee to investigate resource sharing. |
| **Tennessee** | Soon | No | No | No | Fiber Optics -- Installation on the I-55 Bridge in Memphis has been approved. TDOT will receive the exclusive use of six unlighted fibers. |
| **Arkansas** | Yes | No | No | No | Fiberoptic: Lines have been installed on some Interstates (I-40 across state; some sections of I-30, I-540,I-430). Receive lines in exchange.<br>Wireless: Not allowed on any highway ROW at present. |
| **Louisiana** | Yes | Yes | Yes | Yes | Fiberoptic :In process. Wireless - One site |
| **New Mexico** | Yes | Yes | Yes | Yes | Fiberoptic: State negotiating for Interstate and other State R/W accommodations partners. |
| **Oklahoma** | Yes | Yes | No | No | Fiberoptic: One line in place. No Wireless yet. |

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| **Texas** | Yes | Yes | Yes | Yes | Fiber Optics -- Installations on Texas Interstate and other freeway locations in accordance with the TxDOT Utility Accommodation Manual. No compensation received. Utilities have a right to occupy the ROW outside the frontage roads outside the clear zone near the ROW line. No resource sharing is involved as yet, but rulemaking underway. Wireless Telecommunications -- Two Interstate and two other freeway installations in the San Antonio area. No compensation received. No resource sharing involved as yet. |

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| **Midwest** | | | | | |
| **Illinois** | No | No | No | No | IDOT considered F.O. and wireless opportunities in the St. Louis and Chicago areas but decided against them after careful consideration. Discussions on other projects continuing (4-00) |
| **Indiana** | Yes | No | No | No | Fiber Optics -- On the Indiana Toll Road, I-80/I-90, across the northern portion of the State. INDOT Toll Road Division compensated with cash and use of fiber capacity. Wireless Telecommunications INDOT is considering developing a RFP for wireless using certain facilities, such as tower light supports. |
| **Michigan** | Yes | Yes | No | No | No charge for use. Permit required with one-time permit fee of $1000/mile. Accommodation normally only within 15 ft of fence. All utilities included in longitudinal accommodation. |
| **Minnesota** | Yes | Yes | No | No | MnDOT has entered into agreement with a private consortium granting them exclusive access to lay a fiber optic network within state trunk highway right-of-way. The Minnesota trunk highway system consists of Interstate, NHS, and other principal arterials. No wireless actions to date. **FCC Decision - see discussion** |

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| **Ohio** | No * | No* | Yes | Yes | * Fiber Optics --There are presently no private fiber optics that are longitudinally installed along Interstate or other Freeways. It is ODOT's policy to discourage this as it could open the door for other longitudinal installations of such things as water, sewer, gas, etc.<br>In large metropolitan areas, some government owned longitudinal fiber optic installations for ITS purposes. On both Interstate and other Freeways, there are transverse installations of fiber optics.<br>Wireless Telecommunications: There are currently 20 Telecom towers on Interstate R/W and 1 tower on a Non-Interstate freeway. One other tower is located at an ODOT District office. |
| **Wisconsin** | Yes | Yes | No | No | Fiberoptics - WisDOT may receive compensation in fiber, cash, or both for long. installations on controlled-access freeways and expressways. Access to other state highways is free. At this time, WisDOT has only received cash comp. from $5,500 to $10,000/mile over a 20-25 year period. Five companies utilize controlled-access highways–approx.320 miles and $1.8 million. WisDOT currently does have a need for fiber for ITS and other applications Wireless - No wireless accommodation to date, but a couple of companies have indicated interest. WisDOT would allow installations at rest areas, weigh scales, or another safe ROW location for a tower. NOTE: For both fiber and wireless, a master agreement is prepared and permits issued per location. |
| **Iowa** | Yes | Yes | No | No | Fiber Optics -- For State purposes only -- the Iowa Communications Network (ICN). No resource sharing was involved. Certain other commercial underground communications (fiber and copper) cables are also permitted for annual fee. |

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| **Kansas** | Yes | Yes | No | No | Fiber Optics -- On a 25-mile section of Interstate maintained by the Kansas Turnpike Authority (KTA) and on other freeway ROW. Cash compensation received in at least one case. KDOT has two shared resource projects underway. The Kansas City contract covers 147 miles of ROW along I-35, I-70, I-435, I-635, US-69, US-169, K-10, and K-7. The statewide contract covers 550 miles of ROW from Kansas City to the Colorado border, through Lawrence, Topeka, and Salina, largely along I-70, and from Salina south on I-135 to Wichita. Wireless Telecommunications facilities have not yet been installed on Interstate ROW or any other controlled access Federal-aid highway ROW in Kansas. |
| **Missouri** | Yes | Yes | No | No | Fiber Optics - Some longitudinal installations have been permitted where outer roads exist on interstate and other freeways but only one installation (thru the RFP process) was permitted in exchange for the use of six strands of F.O cable as the backbone for MoDOT's ITS network. The value of the F.O. system has been recognized under the FHWA Innovative Finance Program and a $30 million soft match credit has been approved for use on future ITS projects. Wireless Telecommunications -- MoDOT issued an RFP in September, 1997, for a shared resources public-private partnership to support deployment and operation of ITS in Missouri. After extensive negotiations, the original communications company selected by MoDOT decided not to pursue this partnership any further due to changes in the wireless telecommunications market. MoDOT will continue to seek other partners for future opportunities in resource sharing. |
| **Nebraska** | No | No | No | No | An RFI went out 7-98, responses evaluated, no activity to date. |

| **Western** | | | | | |
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| **Colorado** | Yes | Yes | No | No | Fiber Optics -- Installations have been permitted on Interstate and other freeway ROW in exchange for fibers to be used by CDOT for their own use. Wireless Telecommunications To date, wireless telecommunications facilities have not been installed on any Interstate highway ROW in Colorado or on any other controlled access Federal-aid highway ROW in the State. A revised utility accommodation plan has been submitted to DO for approval that addresses wireline and wireless telecommunication facilities. |
| **Montana** | No | No | No | No | Comments -- MDT continues to study the affects of utility occupancy of interstate rights-of-way. A Task Force of industry representatives, MDT, legislators and FHWA is currently evaluating the pros and cons as effect MDT, the industry and Montana. |
| **North Dakota** | Soon | Soon | No | No | Fiber Optics -- NDDOT has considered the installation of fiber optics in the right-of-way. However, negotiations with a private vendor failed, and no additional requests have come forward NDDOT. Wireless – There is no effort underway to locate any wireless facilities. |
| **South Dakota** | Yes | Yes | No | No | Fiber Optics – The SDDOT has installed fiber optics cable in the Interstate ROW. Other requests will be considered as the need arises. All schools (elementary, Middle and High Schools, and Universities) in South Dakota have been wired with Fiber Optics to make the Internet available to all South Dakota Students. |
| **Utah** | Soon | Soon | No | No | Fiberoptics - Governor's Task Force recommendations and regulations being developed to respond to recent change in State law allowing compensation beyond basic permit fee. |
| **Wyoming** | Yes (limited) | Yes | No | No | Fiber Optics - Installations permitted on freeway ROW. Interstate reviewed separately on case by case basis. Compensation varies. Resource sharing under review. State Business Council and DOT involved in the review process. |

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| **Arizona** | No | No | Yes | Yes | Wireless Telecommunications -- ADOT sent out a RFP in July, 1996, offering to lease highway ROW, statewide, for wireless facilities. Proposals were received from three carriers and one management company. Presently, an antenna has been installed on one overhead sign structure support located adjacent to the ramp between I-10 and the Route 202 Freeway. Cash compensation was received. |
| **California** | No | No | Yes | Yes | Fiber Optics -- Installation for State purposes only. No resource sharing involved. Caltrans exploring options to develop fiber optics accommodation policy that would permit compensation in some form to Caltrans. Legislative changes would be necessary to revise State Code. Wireless Telecommunications -- Installations permitted on Interstate and other Freeways (access controlled) under State's "Licensing Process and Siting Guidelines". Cash compensation to Caltrans based on type of equipment and geographical location. (See website - http://www.dot.ca.gov/wireless/). Wireless telecommunication sites permitted on conventional highways as encroachments. |
| **Hawaii** | Yes | Yes | Yes | Yes | Fiber Optics: One installation at the tunnel on H3 is for State use only. No other Interstate installation. On state routes one provider has a longitudinal installation that runs along 4 different State routes as well as City routes.<br>Wireless: Installations at the 3 tunnels located on Oahu. Two are state routes one is Interstate. Resource sharing accommodated. Carriers are charged fair market value on lease agreements. All active wireless providers are required to form a consortium for location decisions.. |
| **Nevada** | No | No | No | No | NDOT is considering options and trying to develop F.O. and wireless policies. |
| **Alaska** | No | No | No | No | |
| **Idaho** | No | No | No | No | Fiber Optics -- Installations not permitted on Interstate ROW. Looking at hiring a consultant to prepare an RFP to offer fully limited access facilities (including the Interstate)for fiber installation in return for either barter or cash benefits. Use of other highways is anticipated. |

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| **Oregon** | Yes | No | No | No | Fiber Optics -- Installations have been permitted on Interstate ROW as an exception to ODOT's utility accommodation policy. There was no compensation other than the normal administrative fee associated with the permit; thus, no resource sharing was involved. ODOT is currently considering a policy for resource sharing. |
| **Washington** | Yes | Yes | Yes | Yes | Fiber Optics --WSDOT issued an RFP to offer fully limited access facilities (including the Interstate)for fiber installation in return for either barter or cash benefits. Use of other highways is anticipated. State working with successful bidder to design system this spring/summer.<br>Wireless -- WSDOT has a model airspace lease agreement that permits wireless on all highways if operations and safety not compromised. Fee schedule based. |

# RESOURCE SHARING
# STATE BY STATE STATUS REPORT
## April 2000 Update
## Eastern Resource Center:

**Connecticut**
FHWA Contact: Roger Ryder, Connecticut Division, (860) 659-6703, ext 3007
State Contact: Robert Ritsick, ConnDOT, (860)594-3262
Fiber Optics:lines have been installed on Interstate highway ROW in Connecticut for State purposes only -- Incident Management System (IMS) and Intelligent Transportation System (ITS). Fiber optics lines been not been installed on any other controlled access Federal-aid highway ROW in the State. No outside compensation was involved. Performed with Federal/State transportation funding. Lines have been buried in conduit near the outside shoulder; not in median. The Division Office has been active in the promotion of IMS and ITS, and in reviewing, providing comments, and approving IMS PS&E submittals. The Division Office has also advised ConnDOT on the effects of the Telecommunications Act on utility accommodation, and has reaffirmed existing FHWA policy on shared resources arrangements: (1) Mr. Gerald L. Eller's October 25 memorandum, on the subject, and (2) notes from Mr. L. Harold Aikens, Assistant Chief Counsel (HCC-30), dated April 3, June 10, and October 2 and 17, on the Telecommunications Act of 1996, sale of excess capacity of State owned fiber optic cable, State's rights regarding right-of-way exclusivity, and telecommunications company actions to provide or precludes access to competing telecommunications carriers, respectively. The Division Office has also advised ConnDOT of their responsibilities for ensuring non-discriminatory access to fiber optic conduit installed in State owned right-of-way. Wireless Telecommunications facilities have not yet been installed on any Interstate highway ROW in Connecticut, but the Division Office recently authorized a project involving Digital Highway Advisory Radio (HAR) at 6 locations. No outside compensation will be involved in the HAR installations. The project will be performed with Federal/State transportation funding. The facilities will be located outside the clear zone, in ramp median areas. The Division Office has been involved in the promotion of HAR, and in reviewing, providing comments, and approving Highway Advisory Radio (HAR) PS&E submittals.

**Maine**
FHWA Contact: Ken Todd, Maine Division, (207) 622-8350, ext. 12
Fiber Optics lines have been installed on Interstate highway ROW in Maine and on other controlled access Federal-aid highway ROW in the State. No compensation has been received. The lines were installed outside the clear zone and are maintained from the mainline. The Division Office provides advice and approval. Wireless telecommunications facilities have not been installed on Interstate highway ROW in Maine or on any other controlled access Federal-aid highway ROW.

**Massachusetts**
FHWA Contact: Deborah Leslie, Massachusetts Division, (617)494-3330
State Contact: Michael Schwartz, Massachusetts Highway Department, (617)973-7559
Fiber Optics Mass. DPW has some installations on Route 128. State receives several lines in return
Wireless State permits some wireless antennas, and receives some usage of these facilities.

**New Hampshire**
FHWA Contact: Martin Calawa, New Hampshire Division, (603) 225-1609
Fiber Optics New Hampshire presently does not have any longitudinal installations of fiber optics lines in Limited Access ROW. The one exception to this is a very short line from the FAA center in Nashua to another location near by along Route 3. It was allowed as a hardship installation. It is only a few feet inside the L.A. fence.Wireless Telecommunications New Hampshire presently does not have any wireless telecommunication facilities in Limited Access ROW. Comments The New Hampshire policy has been to not allow installations on limited access highways. However, the policy is beginning to change. MCI has informally requested permission to install a fiber optic line along the F.E. Turnpike [a toll road] from Merrimack to Manchester. The NHDOT's utility section has been told that they will review any proposal that is submitted by MCI. It is assumed that, if MCI does put in a line, there will be some kind of financial compensation for the use of the ROW. Wireless telecommunication facilities have been proposed in the past and denied; however, the NHDOT may be softening on such installations also.

**New Jersey**
Fiber Optics FHWA Contact: David Powell, Traffic Ops. & Safety Engineer (609) 637-4207
NJDOT Contact: James Paral, (609) 530-2488.
Fiber optics have been installed on Interstate ROW and other NHS highway ROW. These facilities are State owned and operated. They were installed for State Traffic Management Systems purposes (i.e. computerized signal systems, etc). They have been located at various locations, including the median. Access occurs from the traveled way. (i.e. need traffic control with lane closure, etc). The Division Office reviews, approves proposed locations, and advises NJDOT as part of their review of contract plans.
Wireless FHWA Contact: David Powell, Traffic Ops. & Safety Engineer, (609) 637-4207
NJDOT Contact: Richard Dube, (609) 530-4467
Wireless telecommunications facilities have been installed in 5 locations on Interstate and other NHS ROW with additional installations proposed. Since wireless communications are not a public utility under State law, the installations are being done under airspace agreement provisions rather than a utility accommodation policy. The Division Office reviews and comments on conceptual plans for proposed Interstate locations to be used for wireless telecommunications and approves final plans. The Division Office has assisted the NJDOT in establishing guidelines and procedures for installation, approval of location sites, final approval of installations.

**New York**
FHWA Contact: Emmett McDevitt, New York Division, (518) 431-4125
NYSDOT Contact: Richard Lee (518) 457-4449 Utilities, or Richard Morris, Real Estate (518)459-2430
Fiber Optics Fiber optics lines have been installed on the New York State Thruway, which is maintained by the New York State Thruway Authority (NYSTA), from New York City to Buffalo (+/- 500 miles). NYSTA is an Authority and not under the jurisdiction of NYSDOT. One of six fiber banks is dedicated to the NYSTA for their use with communications, ITS, and other things. In addition, phased in cash will be provided at years 5 thru 20, and complete ownership of all the fiber optic will be attained within the ROW after 20 years. Fiber optics lines have been located mostly on the ROW line, but occasionally in the median because of environmental or other constraints. Maintenance will have to be performed from the mainline with a permit requiring proper work zone traffic control and other safety considerations. In addition, a 17-mile fiberoptic facility has been installed on I-84, which is under the jurisdiction of the NYSTA. NYSDOT has one contract for a fiberoptic project on and Interstate, and is evaluating another proposal for a freeway

ROW. The state receives eight governmental fibers, NYSDOT one empty duct. Revenue sharing does apply above a threshold. The Division Office has reviewed the fiber optics installation locations, approved those areas that required median installations, and advised of additional verbiage to enhance safety during installation and maintenance. Wireless telecommunications facilities (antennas) have been installed on Interstate 495 in New York State. The State receives a rental fee for accommodating the wireless installations (antennas). The antennas on the Interstate will be accessed for maintenance purposes from the mainline in some instances. Under a site manager services agreement, NYSDOT ROW is to be used for wireless. Gross revenues are distributed 30/70 or 50/50 depending on who builds (or built) the facility. A proposal to rent antenna space on New York State Thruway Authority communication towers was discussed with the DO to confirm that FHWA approval was not required.

**Puerto Rico**
FHWA Contact: Emigdio Isern 809-766-5600 x224
Determination of ROW sharing not yet done. Future DOT Intelligent Vehicle system and revenues are the only possible benefits now seen. PRDOT is installing conduits as part of widening projects in case accommodation decision is made.

**Rhode Island**
FHWA Contact: Gabriel Brazao 401-528-4551 No wireline activity to date. OmniPoint Cellular Phone Company has installed antenna monopoles within the Interstate and other NHS Right-of-Way.

**Vermont**
FHWA Contact: Mark D. Richter, Vermont Division, (802) 828-4423
Fiber Optics Fiber optics lines have not been installed on Interstate ROW or on any other controlled access Federal-aid highway ROW in Vermont. The Division Office has provided advice to the State.
Wireless telecommunications facilities have not been installed on Interstate highway ROW in Vermont or on any other controlled access Federal-aid highway ROW. Division Office provides advice to the State.

**Delaware**
FHWA Contact: Robert Kleinburd (302) 734-2966 DelDOT:Gene Donaldson (302) 739-7786
Fiber Optics lines have not been installed on Interstate highway ROW in Delaware or on any other controlled access Federal-aid highway ROW. Wireless telecommunications facilities have not been installed on Interstate ROW in Delaware or any other controlled access Federal-aid highway ROW.
**4/2000 - Delaware still does not have shared resource activity. Although fiber optics are being installed along I-95, it is being done in conjunction with the I-95 Corridor Coalition. The I-95 Corridor Coalition is an organization of Northeast States representatives gathered together to promote a coordinated ITS response. The most visible result of their activity is the EZ-Pass toll effort which involves the States from Maine to Delaware. Fiber optics currently being installed will be used for coordinated ITS application, such as multi-state linked overhead signing messaging.**

**District of Columbia**
FHWA Contact: Ed Sheldahl, DC Division, (202) 523-0163
Fiber Optics lines have not been installed on Interstate highway ROW in the District of Columbia or on any other controlled access Federal-aid highway ROW. Various installations on other NHS routes in the District.
Wireless telecommunications facilities have not been installed on Interstate highway ROW in the District of Columbia or any other controlled access Federal-aid highway ROW.

**Maryland**
FHWA Contact: Ann Hersey, Maryland Division, (410) 962-4342 ext. 135
Fiber Optics lines have been installed on Interstate ROW in Maryland on I-83, I-95, I-295, and I-695, but have not been installed on any other controlled access Federal-aid highway ROW in Maryland. The State received conduit and fibers as compensation. On approximately 370 total miles, cables were installed in the median, under the right hand shoulder, and beyond the right hand shoulder. All locations were within the ROW. Access is from the mainline. The Maryland Division and Region 3 offices worked with MSHA, providing guidance and approving the installations. Wireless Telecommunications facilities have been installed on Interstate ROW in Maryland on I-95 at MD 32 in Howard County. A tower replaced a high mast light pole and now has a light fixture attached to it. Wireless telecommunications facilities have been installed at I-95at MD32, I-270 at Montrose Rd, I-495 at MD185 and I-695 at Greenspring. Ten towers have been installed along controlled access facilities, many near or within interchanges. Towers accommodate

multiple providers - as many as five providers per structure. Additional tower sites are under consideration. 9 additional towers are proposed within the ROW of both Interstate and other controlled access Federal-aid highways. The State will receive monetary compensation for these installations, approximately $14,000 - $20,000 per site annually.The dollar amount varies by site. The Maryland Division and Region 3 Office have been working together with MSHA to develop guidelines for the placement of wireless facilities within the highway right-of-way. The priorities below correspond to Maryland's "Wireless Telecommunications - Priority Checklist for Site Selection."

1) I-270 at Montrose Road - located along diagonal ramp of the interchange. Access from the left hand side of the diagonal ramp. (Priority 3 location)
2) I-495 at MD 185 - located along the mainline, but well outside the clear zone. Access from Kensington Parkway, a county road. (Priority 1 location)
3) I-695 at Greenspring Ave. - located in the infield area of the interchange, with access from Greenspring Ave, a county road. (Priority 1 location)
4) US 50 at MD 193 - located along the mainline, but well outside the clear zone, with access from MD 193. (Priority 1 location)
5) US 50 at Lottsford Vista Road - located in the NW quadrant (not accessible from mainline of US 50) with access from Lottsford Vista Road, a county road. (Priority 1 location)
6) I-495 at Longwood Road - located along the mainline, but in an already shielded location. Access is from Longwood Road, a county road (Priority 1 location)
7) US 29 at MD 32 - located along the diagonal ramp, with access from a nearby county road. (Priority 1 location)

**Pennsylvania**

FHWA Contact: Leland J. Kissinger, Utilities Specialty in the PA Division Office, (717) 221-3727
John Proud, Utilities Engineer, PennDOT Central Office (717-787-4038).

Fiber Optics Fiber optics lines have not been installed on Interstate highway ROW in Pennsylvania or on any other Federal-Aid highway ROW in the State. Wireless Telecommunications facilities have not been installed on Interstate highway ROW in Pennsylvania or on any other Federal-Aid highway ROW in the State. Comments The Division Office has played the role of providing information to the PennDOT that has been received from FHWA HQ over the last couple years on resource sharing. They encourage PennDOT to develop resource sharing agreements with private utilities as a means to provide the comm. infrastructure for their ITS implementation and have been involved in some of the studies PennDOT has done in this area.

**Virginia**

FHWA Contact: Tim Lewis, Virginia Division, (804) 775-3348

Fiber Optics Fiber optics lines have not been installed on Interstate highway ROW in Virginia or on any other Federal-Aid highway ROW in the State as part of Resource Sharing. However, an agreement is in the works for 1,200 miles of fibers to be installed. Fiber optics lines have been installed in Northern Virginia for VDOT's traffic management system but this is not a part of resource sharing. Virginia plans to receive fiber infrastructure as compensation. More specifically, they will receive 18 fibers on 1,300 miles of rural Interstate, and 48 fibers on 148 miles of urban Interstate. It is VDOT's intention to locate these facilities far enough off the edge of pavement where access would not be a problem. The fibers must be placed so as not to interfere with the safe operation of the highways. The preferred location is to the right of the travel lanes, possibly outside of the clear zone or near the ROW line; however, fibers will not be located in the median. Wireless Telecommunications There are 65 sites which have been approved for wireless telecommunications installations on Interstate highways in Virginia. Some of these towers are under construction. Most of these facilities are in Northern Virginia and Suffolk, mainly on Interstate highways at strategic interchanges. Virginia will receive a combination of money and ITS infrastructure. Normally VDOT owns the tower. After a 5 year period, VDOT will receive approx. $1000/month from users of the tower. These tower facilities are going to be accessed from service roads, ramps, and secondary roads. Any access from mainlines has to be approved by the Division Office.

**West Virginia**

FHWA Contact: Henry (Ed) Compton (304) 347-5268

Fiber Optics: Fiber optic lines have not been installed on Interstate highway ROW in West Virginia or on any other controlled access Federal-aid highway ROW. Wireless Telecommunications: Wireless towers

have not been installed on Interstate highway ROW in West Virginia or on any other controlled access Federal-aid highway ROW. Comments: The West Virginia Department of Transportation is represented on a task force commissioned by the Governor of West Virginia to review and recommend actions to be taken that would permit the placement of fiber optics within the controlled access right of way. No recommendations have been developed by the task force to date.

## Southern Resource Center:

**Alabama**

FHWA Contact: Bill Van Luchene, Alabama Division, (334) 223-7379

Fiber Optics Fiber optics lines have not been installed on Interstate highway ROW in Alabama or on any other controlled access Federal-aid highway ROW. The Division Office has been monitoring ALDOT activities in this regard and providing education. Wireless Telecommunications have not been installed on Interstate highway ROW in Alabama or on any other controlled access Federal-aid highway ROW. The Division Office has been monitoring DOT activities in this regard and providing education. Comments The Alabama DOT has appointed a committee to evaluate all aspects of placing both fiber & wireless facilities on Interstates and other access controlled highways.

**Florida**

FHWA Contact: Bill Wade, Florida Division, (805) 942-9650 x3021

FDOT Contact: Gene Glotzbach, (805) 414 7620

Fiber Optics: Fiber has been installed on Interstate highway ROW and other controlled access Federal-aid highway ROW in Florida on a limited basis by the Florida DOT to support ITS initiatives in urban areas. To build a complete fiber network, the Florida DOT sent out a Request for Proposals (RFP) in October 1999 for industry to provide fiber optics on 2000 plus miles of limited access NHS. The Florida DOT received no proposals. A second RFP providing greater flexibility to industry, was made available March 17, 2000. To compensate Florida DOT for the rights to install their commercial networks, industry will provide fiber infrastructure to the Florida DOT. These facilities will be located in a 10' easement located just inside the ROW line and industry will be allowed access to the fiber from the roadway for routine maintenance. The Division Office has provided guidance on safety and technical issues relating to access of the fiber corridor for installation of the fiber as well as maintenance activities.

Commercial Wireless Telecommunications: Commercial wireless facilities are being installed on Interstate highway ROW in Florida as well as the Florida turnpike facilities. Florida DOT has signed an agreement with Lodestar Towers, Inc. to market limited access rights-of-way for the installation of commercial wireless telecommunications facilities. The Florida DOT has the option of receiving a percent of the gross revenue generated at these tower sites or receiving services. In addition to limited access rights-of-way, Lodestar can utilize Florida DOT Maintenance yards as well as existing communication facilities for commercial wireless telecommunications. The first commercial wireless telecommunications facilities were erected in March of 2000 and through the course of the year, Lodestar expects to erect some 70 towers on Florida DOT property. Florida DOT has its own network of towers to support the call box communication system and the Florida DOT's 47 MHz land mobile communication system. Lodestar Towers, Inc. was selected through the RFP process with an agreement signed March 25, 1999. The Division Office has provided technical assistance.

**Georgia**

FHWA Contact: Bob Chaapel, Georgia Division, (404) 562-3657

Fiber Optics: GDOT has installed fiber optics on Interstate ROW but only for their own use on I-20, I-75, I-85 and I-285 in the Atlanta area and I-475 in the Macon area to support the deployment and operation of their ITS network (no resource sharing involved). GDOT has not installed fiber optics on any other controlled access facilities. The FHWA Division Office provided technical assistance and approved the installation. Wireless: GDOT has not installed any wireless telecommunications facilities on Interstate or other controlled access facilities. The FHWA Division Office advises GDOT on issues relating to wireless.

**Kentucky**

FHWA Contact: Trudy Knutson, Kentucky Division, (502) 223-6728

Fiber optics lines have not been installed on Interstate highway ROW in Kentucky or on any other controlled access Federal-aid highway ROW in the State, except for some that have been installed solely for highway use -- no resource sharing involved. The State is currently considering the use of the ROW by others. Wireless Telecommunications facilities have not been installed on Interstate highway ROW in Kentucky or on any other

controlled access Federal-aid highway ROW in the State. Comments The Kentucky Division has played an advising role on resource sharing.

**Mississippi**

FHWA Contact: Maranda Hahn, Mississippi Division, (601) 965-4233

Fiber Optics lines have not been installed on Interstate highway ROW in Mississippi, except for a very minor amount on the Gulf Coast. Fiber optics lines have been installed on other controlled access Federal-aid highway ROW in Mississippi, as with other utilities, on many non-Interstate 4 lane and 2 lane highways. No resource sharing has been involved. MDOT people are of the opinion that the same people who pay the rates are the same people who pay for the highway, and the utility company would just pass the cost of any remuneration back to the public. Accommodation of the Interstate fiber optics lines has been by a year-to-year permit for the last 6-7 years because the utility hasn't been able to buy ROW and move. Utilities locations are usually limited to the last five feet of ROW limits if possible. The Division Office advises MDOT whenever asked and only see the permits that deal with utilities crossing the Interstate. Wireless Telecommunications facilities have not been installed on Interstate highway ROW in Mississippi or on any other controlled access Federal-aid highway ROW.

**North Carolina**

FHWA Contact: Ken Ivey, North Carolina Division, (919) 856-4330

Fiber Optics lines have not been installed on Interstate or on any other fully controlled access highways in North Carolina. There have been some installations on partial controlled or limited access routes. No compensation was received for these installations. They were all installed near the ROW line and are to be accessed from existing access points or ramps/frontage roads, etc. - not from the mainline. Wireless Telecommunications facilities have not been installed on Interstate or on any other fully controlled access routes in North Carolina. Comments The FHWA Division Office provides advice as needed on any issues relating to resource sharing. There has been no change in North Carolina since the review last year by the Office of Program Quality Coordination. North Carolina officials have not changed their position relating to these facilities. At the present time, they do not believe it is worth pursuing. There has been one persistent inquiry from VIVX relating to fiber optics along I-40 and I-85, particularly between Greensboro and Durham, but the NCDOT has resisted the pressure and no facilities are planned.

**South Carolina**

FHWA Contact: Steve Ikerd, South Carolina Division, (803)253-3885

SCDOT Contact: Marion Leaphart, (803)737-1293

Fiber Optics: With the exception of a Southern Bell fiber optic cable crossing of the Cooper River on the I-526 bridge in Charleston, the SCDOT has not allowed the installation of privately owned fiber optic lines within the R/W of any controlled access facility. In return for allowing the Cooper River crossing in the early 1990's, the SCDOT received fibers from the bridge site to the District office for use in the operation of a Fog Detection and Warning System. The SCDOT has installed and owns approximately 50 miles of fiber optic cable along portions of I-85, I-77, & I-26 for operation of freeway management components in the Greenville/Spartanburg, Columbia, Rock Hill, and Charleston urban areas. Wireless: The SCDOT has not allowed the installation of telecommunication towers within the R/W of any controlled access facility. Comments The SCDOT has established a telecommunications committee, on which FHWA serves, to investigate the possibility of resource sharing and has hired a consultant to conduct a market analysis and assist with development of an RFP. Two FHWA sponsored workshops (Apogee Research and Maryland State Highway Administration) were conducted a few years ago.

**Tennessee**

FHWA Contact: Pete Deere, Tennessee Division, (615) 781-5792

TNDOT - John Boynton (615)741-2891

Fiber Optics The first application of fiber optics on Interstate highways in Tennessee was concurred in by the Division Office on 9-22-97 and involved the I-55 Bridge in Memphis. Actual installation has not commenced as of 4-2000. No longitudinal fiber optics lines have been permitted along any other controlled access facilities in the State. TDOT will receive the exclusive use of six(6) unlighted fiber lines on the I-55 Bridge installation. The lines are to be installed along the outside of the bridge structure, but no direct access will be allowed from the through roadway or ramps for initial placement or future servicing of the fiber optic lines. The Division Office has been instrumental in forwarding legal and operational guideline publications, as well as current informational material, to TDOT management and has conducted a one day joint seminar with TDOT officials, and representatives of Apogee Research, Inc. and the Missouri DOT on 11-19-96. Wireless

Telecommunications facilities have not been installed on Interstate or any other Federal-aid controlled access highways in Tennessee. The Division Office has, however, been instrumental in forwarding legal and operational guideline publications, as well as current informational material, to TDOT management, and also conducted a one day joint seminar with TDOT officials, and representatives of Apogee Research, Inc. and the Missouri DOT on 11-19-96. **4/2000 - Tennessee has been inactive in this area over the past year.**

**Texas**
FHWA Contact: Lee Gibbons, Texas Division, (512) 916-5516
Fiber Optics lines have been installed on Texas Interstate highway ROW and on other controlled access Federal-aid highway ROW in accordance with the TxDOT Utility Accommodation Manual. These lines have been installed by companies that are considered utilities, and no resource sharing has taken place as yet. No compensation was received since the companies had a right to occupy the right of way. These fiber optic lines are located outside the frontage roads, outside the clear zone near the ROW line. They will be maintained from the frontage roads and side streets. Texas has an extensive system of frontage roads along the Interstate and other controlled access highways throughout the state, and utilities are generally located between the frontage road and ROW line along these highways. The Division has not had any involvement in these lines since they are approved by TxDOT using permit procedures. Resource sharing efforts are well underway, with rulemaking procedures underway. A pilot implementation effort will then follow as a need is identified. Wireless Telecommunications facilities have been installed on Interstate ROW at two locations the TxDOT Central Office ROW (Utility) Section is aware of in the San Antonio area. There are also two wireless installations on other controlled access Federal-aid highway ROW in the San Antonio area. TxDOT did not receive any compensation for these installations since the companies erecting the facilities were considered utilities with a right to occupy the ROW. These facilities that are located on the ROW are monopole tower assemblies. The support cabinets have generally been placed off the ROW. The towers located on the ROW are located near the ROW line outside the clear zone and will be accessed from the frontage road or side street. One pole is located in a benign location from the safety standpoint outside the frontage road in an interchange area. The Division Office does not have an active role but does communicate with the TxDOT Central Office ROW section on this subject occasionally.

**Arkansas**
Contact: Robert Tyler, AH&D (501)569-2321
Fiberoptic: Lines have been installed on some Interstates (I-40 across state; I-30 from Little Rock to Hope; I-540 MO line to Ft. Smith through tunnel facility, I-430 from I-40 to I-30). All lines installed near fence line, with pull boxes outside access line at each interchange. AH&D has access to each pull box, and are assigned space/lines at each regeneration site in exchange. Wireless: Not allowed on any highway ROW at present.

**Louisiana** - Contact: Pete Nyberg, LA Division (225) 757-7625
Fiberoptics cables can be placed along non-controlled access freeways at no charge to the utility. Along controlled access freeways and Interstate highways fiber optics can be placed for a charge of $5,000 per mile (a one time charge). The LDOTD published a Rule for Fiber Optic permits in the Louisiana Register on December 20, 1999 allowing fiber optics and for resource sharing of the lines. LDOTD will ask for fibers for their use in any agreement. Money obtained from this endeavor will be deposited in the Highway Fund. There are six companies installing lines along Interstates as of February 1, 2000.
Wireless towers are allowed but only one tower has been installed in a rural Interstate Highway Interchange. The fees are low annual fees but higher than usually obtainable in other areas. Fees are based on area where tower will be located (higher fees in metropolitan areas, lower in rural areas).

**New Mexico**- Contact: Joe Edwards, NM Division (505)820-2024
Lester Cisneros - NMSHTD Utility Section Chief 505)827-5357
The State of New Mexico has a process in place & in use which enables the placing of wireless sites within State R/W. The State is currently developing a process to enable the placement of wireline (fiberoptics) facilities within Interstate and other state R/W. Anticipate some installations during the Summer of 2000.

**Oklahoma** - Contacts: Lynn Whitford, Utility Manager-ODOT (405)521-2641
Alan Stevenson, Traffic Engineering Division-ODOT (405)521-2861
Gary Brown, Oklahoma Turnpike Authority (405)425-3646
Fiberoptics: Oklahoma currently has a Fiber Optic facility in place that begins at the Texas/Oklahoma State Line and extends to Oklahoma City along Interstate Highway 35. The facility continues along Interstate Highway 44 to the Missouri/Oklahoma State Line. The Transportation Commission was the Authoritative body that granted an exception to current policy. The facility was placed under the supervision of the Department of

Transportation. Resource sharing was a factor in the agreement to place this facility within Interstate Highway R/W. The facility was placed at no cost to the State. The State received exclusive use of 12 fibers (4 Lighted). The State would not be responsible for the maintenance of the facility. All future costs associated with Highway Construction requiring relocation would be born by the company. Traffic Engineering Division is currently working on the placement of a Fiber Optic facility along a route that involves various Interstate Highway Right of Ways that is associated with the future Intelligent Transportation System. Wireless: Not allowed at this time.

## Midwest Resource Center:

**Illinois**

FHWA Contact: Walter Waidelich, Illinois Division, (217) 492-4622

Fiber Optics lines have not been installed on Interstate or on any other fully controlled access highways in Illinois. Illinois is now considering several fiber optic cable proposals. Nothing formally approved, but serious proposals by a few companies, e.g., Williams Communications (along I-270 from St. Louis, I-55, I-155 and I-74 to Peoria). Williams has yet to complete the required environmental work and permits through IDOT. Digital Teleport, Inc. (DTI) also has a proposal being reviewed by IDOT for installations on I-72 from Quincy to Champaign and on I-74 from Champaign to Indiana. The current controversy with DTI is their proposal for installations within the median of the Interstate. In the State of Missouri Agreement (Missouri Compromise?), Missouri allowed DTI to install in the median, and there were big problemos. I asked the Missouri Division Office about the "pros and cons" of median installations; they had one pro and thirteen cons! To date we don't see where it would be in the best public interest to allow median installations in Illinois, but that issue might be a good topic of discussion at AASHTO. Anyway, Illinois is now considering various proposals, and it seems likely that actual installations will begin within the Interstate ROW this year--hopefully along the access control fences. Wireless Telecommunications facilities have not been installed on Interstate or on any other fully controlled access routes in Illinois - no demand to date.

**Indiana**

FHWA Contact: Douglas Head, Indiana Division, (317) 226-7487

Fiber Optics The INDOT has not allowed any fiber optics installations along roads under their jurisdiction, except for the Indiana Toll Road which is I-80 / I-90 across the northern portion of the State and is 251 km in length. The Toll Road Division of INDOT has allowed the installation of fiber optic cable in the median by a utility company from MP 23 to MP 156, a total distance of 214 km. The Toll Road Division has a lease agreement with the utility and receives monetary compensation in addition to 28 T-1 lines (DS - 3 capacity). The Toll Road Division makes use of the capacity for only very limited communications. Very little maintenance of the fiber optic system is necessary except at the regeneration stations which are primarily located at the rest plazas with a few near the ROW line. That part of the system in the median is serviced from the mainline. The toll booths are not connected to the system. Our DO had no involvement in promoting the system. Wireless Telecommunications INDOT does not have any such installations. However, they are considering developing a request for proposals ( RFP ) for wireless communications using certain facilities such as tower light supports. The City of Indianapolis currently has an RFP out trying to get private industry as partners in a wireless system. We and the State are anxiously awaiting the outcome.

**Michigan**

FHWA Contact: John Wiesner, Michigan Division, (517) 377-1880, Ext. 40

Fiber Optics lines have been installed on Interstate highway ROW in Michigan and also on other controlled access Federal-aid highway ROW in the State. Compensation has consisted of a Permit Fee of $1000 per mile. Lines have been located outside the clear and will be maintained from fence line, cross roads, or ramps, with exceptions. The Division Office has played a minimal role consisting of advice only. Wireless Telecommunications facilities have not been installed on any Interstate highway ROW in Michigan or on any other controlled access Federal-aid highway ROW in the State. The Division Office has played a minimal role thus far.

**Minnesota**

FHWA Contacts: Jim McCarthy 651-291-6112 or Pete Kiernan 651-291-6106
MnDOT Contacts: Adeel Lari 651-282-6148 or Bob McPartlin 651-296-4337

Fiber Optics On December 23, 1997, the Minnesota Department of Transportation (MnDOT) entered into an agreement with a private consortium granting them exclusive access to lay a fiber optic network within state trunk highway right-of-way. The Minnesota trunk highway system consists of Interstate, NHS, and other principal arterials. The consortium includes International Communications Services (ICS)/Universal

Communication Networks (UCN) and Stone & Webster Engineering Corporation. Under this agreement, the consortium will construct an 1,800 mile fiber optic network that includes three loops, going to the northern and southern portions of the state as well as to the Twin Cities metropolitan area. In exchange for this accommodation within trunk highway right-of-way, the consortium will provide all state, city and county agencies, as well as public and private schools and universities, free access to the network, up to 20-30% of capacity. The consortium has the right to lease the remaining capacity to other entities on a non-discriminatory basis.

**MnDOT filed a petition with the FCC advising them of the agreement and their plans. FCC responded on December 21, 1999 in part disagreeing with MNDOT's assertions but not overturning the agreement. Based on MNDOT's internal evaluation, they are proceeding to implement the agreement. They were successful in an unassociated lawsuit which questioned the MnDOT Commissioner's authority to enter into the agreement with the consortium.**

That portion of the fiber network from Moorehead to St. Cloud, a distance of 175 miles, is currently under construction. Two 2 inch PVC conduits are being installed 10 feet from the r/w line. One PVC conduit is empty, the other contains 192 fibers in a .8 inch cable.

Wireless Communication have not been installed on any trunk highway right-of-way. Under the terms of the above agreement, the consortium had until April 30, 1998, to advance any proposal for wireless communication. They did not exercise this option. Currently, MnDOT is planning and evaluating whether to go forward with an RFP for Wireless Communication. No decision has been made to date.

**Ohio**

FHWA Contact: Richard Henry (614) 280 -6842, or Jack Springer (614) 280 -6849
ODOT Contact: Rich Weirich (614) 644 -5761

Fiber Optics No private fiber optics have been installed longitudinally in Ohio. There have been transverse (crossings) installations. There are also a few municipal or MPO longitudinal installations for ITS purposes in some of the major metropolitan areas. ODOT has tried to discourage private longitudinal installations as it could set a precedent and open the door for other longitudinal utility installations such as gas, water, and sewer. Wireless Telecommunications There have been tower installations on both Interstate and Limited Access Urban Freeways. 16 towers have been approved (15 on Interstate and one on an Urban Freeway) There is also an installation on one of the ODOT District's property. Each provider must enter into a Statewide Master License Agreement and an individual Site Agreement for each site. The license fee is based on a schedule and ranges in price from $8,000 to $22,000 per year with periodic adjustments, for each site depending on the site location (Urban, Suburban, Rural Suburban, or Rural) and the number of antennae on the tower. In addition, a $10,000 security deposit is required for each installation until the aggregate of the deposits equals $100,000 for an individual carrier. Each carrier must make space available for co-locator carriers and pay ODOT half the fee or half of the scheduled fee which ever is greater, and provide a space for the State Multi Agency Radio Communications System (MARCS) at no charge.

**Wisconsin**

FHWA Contact: Roger Szudera, Wisconsin Division (608)829-7508
WisDOT Contact: Robert Fasick (608)266-3438 / (608)267-7856(fax);email robert.fasick@dot.state.wi.us

Fiberoptics -WisDOT may receive compensation in fiber, cash, or both for long. installations on controlled-access freeways and expressways. Access to other state highways is free. At this time, WisDOT has only received cash comp. from $5,500 to $10,000/mile over a 20-25 year period. Five companies utilize controlled-access highways–approx.320 miles and $1.8 million. WisDOT currently does not have a need for fiber for ITS or other applications The permit fee is inversely proportional to the length of accommodated facilities, as the individual company facilities range in size from a one-mile stretch (@$10,000) to 270 miles (@$5,500/mi.) along controlled-access Highway 29 across the northern part of the state. Individual agreements are based upon cash payment for ROW use, but also provide for lines that the state may use for its purposes in the future as the need arises. Wireless - No wireless accommodation to date, but companies have indicated interest. WisDOT would allow installations at rest areas, weigh scales, or another safe ROW location for a tower. NOTE: For fiber and wireless, a master agreement is prepared and permits issued for each location.

**Iowa**

FHWA Contact: Gerry Kennedy, Iowa Division, (515) 233-7317
Iowa DOT: Larry Heinz 515/ 239-1373 lheintz@max.state.ia.us
Dave Weitek 515/ 233-7903 dwidick@max.state.ia.us

Fiber Optics lines have been installed on Interstate highway ROW in Iowa and also on other controlled access Federal-aid highway ROW in the State. These fiber optics lines comprise the Iowa Communications Network (ICS) system and other underground communications lines. The ICS system is State owned and operated for

State of Iowa business only; therefore, the State has access to the ROW as needed at no cost. Other underground communications systems pay a yearly rental fee, and these facilities have been located as close to the ROW line as possible. Facilities on freeways will be accessed from adjacent lands outside the ROW. Facilities on non-freeways can be accessed from within the ROW. The Division Office has approved longitudinal occupancy. Wireless Telecommunications facilities have not been installed on any Interstate highway ROW in Iowa or on any other controlled access Federal-aid highway ROW in the State. The Division Office has been involved in talks with IDOT about the possibility of wireless telecommunications facilities in the future, but has neither encouraged nor discouraged at this time.

**Kansas**

FHWA Contact: Kirk Fredericks, Kansas Division Office, (785) 267-7284
KDOT Contact: Matt Vol., ITS Coordinator, (785) 296-6356
Fiber Optics lines are currently being installed as part of two KDOT shared resources contracts with Digital Teleport, Inc. (DAI). The first contract was awarded for the Kansas City metropolitan area, in conjunction with an on-going ITS design project (Kansas City Scout) and a Missouri DOT fiber optic shared resources project with DAI on the Missouri side of the project area. The second contract was awarded for a statewide system. The Kansas City contract covers 147 miles of ROW along I-35, I-70, I-435, I-635, US-69, US-169, K-10, and K-7. The statewide contract covers 550 miles of ROW from Kansas City to the Colorado border, through Lawrence, Topeka, and Salina, largely along I-70, and from Salina south on I-135 to Wichita. A contract option continues from Wichita south to the Oklahoma border. Both contracts, which are intended to provide the fiber optics backbone for KDOT's ITS infrastructure, include initial OC-12 fiber optic service with incremental growth to OC-24 within 10 years, extra conduits, and handholds at identified access points and interchanges. Both contracts were awarded in response to a KDOT RFP. The Kansas City contract is about 25% complete, while the statewide contract is about 75% complete. Prior to these shared resources contracts with DAI, fiber optics lines had only been installed on one section of Interstate ROW in Kansas, a 25-mile section maintained by the Kansas Turnpike Authority (MTA), but had been installed on other controlled access Federal-aid highway ROW. Wireless Telecommunications facilities have not yet been installed on Interstate ROW or any other controlled access Federal-aid highway ROW in Kansas. The Division Office has not made much mention of wireless shared resource projects. KDOT invited a wireless vendor in to explain the issues involved with wireless towers on State ROW, but has not yet taken action in this area.

**Missouri**

FHWA Contact: Bob Thomas, Missouri Division, (573) 636-7104
MoDOT Contact: Marv Phillips, MoDOT, (573) 751-2843
Fiber Optics lines have been installed on Interstate highway ROW in Missouri and on other controlled access Federal-aid highway ROW in the State. Under the terms of the public-private partnership with Digital Teleport Inc., who is installing the fiber optic line, MoDOT allowed placement of the fiber optic cable on highway ROW in exchange for use of 6 of the 24 strands of the fiber optic cable as the backbone of MoDOT's ITS network. No investment of public money was required. In addition, the value of the fiber optic system has been recognized under the FHWA Innovative Finance program and a $30 million soft match credit for use on future ITS projects was approved by former Administrator Slater on October 23, 1995. Originally, the fiber optic line was intended to be buried 20 to 30 feet from the edge of pavement. However, after installation was initiated, topography dictated the best location for the fiber optic cable, including installations in the median. Access for maintenance purposes is only allowed from frontage roads or crossroads in accordance with current MoDOT policy. No access from the mainline is permitted. The Missouri Division Office recommended approval of a MoDOT request for an exception to its utility accommodation policy to allow longitudinal installation of the fiber optic cable within the Interstate ROW. This request was approved by the Region 7 office in January, 1994. Wireless Telecommunications MoDOT issued RFP's in September, 1997 and again in the fall of 1998 which were intended to lead to a shared resources public-private partnership with the telecommunications industry to support deployment and operation of the Intelligent Transportation System in Missouri. MoDOT had planned to allow placement of wireless facilities where mutually acceptable sites are identified on MoDOT property in exchange for goods and services that support ITS deployment and operation. A few firms responded to each RFP and a potential telecommunications partner was identified each time, however, in both cases, negotiations were not successfully concluded because mutually acceptable terms could not be reached. MoDOT has also recognized additional potential conflicts with wireless facilities on the right-of-way during anticipated widening of major Interstate facilities in the future. At this time, MoDOT is not actively pursuing a wireless shared resources partnership.

**Nebraska**

FHWA Contact: Ed Kosola, Nebraska Division, (402) 437-5973
Fiber Optics lines have not been installed on Interstate ROW or on any other fully controlled access highway

ROW in Nebraska, except for crossings. An RFI was put out 7-25-98, and interested parties responded. Responses were evaluated, but there are no present plans for additional use of ROW for this purpose. Wireless Telecommunications facilities have not been installed on Interstate ROW or on any other fully controlled access highway ROW in Nebraska.

## Western Resource Center:

**Colorado**

FHWA Contact: Scott Sands, Colorado Division, (303) 969-6703, ext 362

Fiber Optics lines have been installed on Interstate highway ROW in your Colorado and on other controlled access Federal-aid highway ROW. The Colorado DOT received fibers for their own use as compensation. Installations were made in the ROW but are not considered to be a maintenance problem. The DO provided advice and encouragement. Wireline/Wireless Telecommunications facilities have not been installed on any Interstate highway ROW in Colorado or on any other controlled access Federal-aid highway ROW in the State. A revised utility accommodation plan has been submitted to DO for approval that addresses the wireline and wireless telecommunication facilities

**Montana**

FHWA Contact: Merlin Voegele, Montana Division, (406) 449-5302

Fibre Optics lines have not been installed on any interstate highway right-of-way in Montana. The DO continues to provide assistance as requested. Wireless Communications facilities have not been installed on any interstate ROW to date or on any other controlled access federal-aid facility. Comments The MDT has appointed a Task Force to fully evaluate the merits of utility occupancy, including pipelines, of the interstate ROW. The Task Force, with MDT, industry, legislators, and FHWA representatives is currently meeting and is expected to make its recommendations by April 1, 2000.

**Wyoming**

FHWA Contact: Galen Hesterberg, Wyoming Division, (307) 772-2012, ext. 45

WYDOT Contact: Dave Braden (307-777-4133) e-mail:dbryde@state.wy.us

Fiber Optics lines have not been installed on any Interstate highway ROW in Wyoming, but have been installed on other controlled access Federal-aid highway ROW. Compensation under consideration by WYDOT and State Business Council for future installations. WYDOT dictates locations and pushes all facilities to the outside limits of the ROW. Access for maintenance is typically from the highway, as the ROW is fenced. Where available, access for maintenance is recommended from outside the ROW through a locked gate. The DO has provided information, discussed pros/cons, and encouraged development of State policy to consistently respond to requests. Wireless Telecommunications facilities have not been installed on any Interstate highway or any other controlled access Federal-aid highway ROW in the State. Very few requests have been received by WYDOT. Current requests have been denied due to concerns about tower and guy line locations and safety. Future requests will be reviewed by WYDOT and State Business Council for placement and compensation. The DO has provided information, discussed pros/cons, and encouraged development of State policy to consistently respond to requests.

**North Dakota**

FHWA Contact: Rob Griffith, North Dakota Division, (701) 250-4349

Fiber Optics lines have not been installed on any Interstate highway right-of-way or any other Federal-aid highway right-of-way in the state. Wireless Telecommunications facilities have not been installed on any Interstate highway right-of-way or on any other Federal-aid highway right-of-way in the State. The DO has been providing advice, and assistance. Comments :The North Dakota DOT had negotiated with AT&T for the installation of fiber optics cabling. However, negotiations have failed, no additional services being proposed.

**South Dakota**

FHWA Contacts: Resource Sharing - Ken Erlenbusch, South Dakota Division, (605) 224-7326, x3027; Utilities - Ginger Maisie, SD Division, (605) 224-7326,x3037; ITS - Craig Gunslinger, SD Division, (605) 224-7326, x3047. Fiber Optics – The SDDOT has installed fiber optics cable in the Interstate ROW. Other requests will be approved as they are received. The Governor mandated that the World Wide Web be made available to all schools (public and private) in South Dakota. This project has now been completed. All schools (elementary, Middle and High Schools, and Universities) have been wired with fiber optics to provide Internet service to all schools. This required installing fiber optics cabling on many miles of non-Interstate rights-of-way. The DO is providing advice and assistance. Wireless Telecommunications facilities have not been installed on any Interstate highway right-of-way or on any other Federal-aid highway right-of-way in the State. The DO

has been providing advice and assistance.

**Utah**
FHWA Contact: Dan Pacheco, Utah Division (801-963-0078 x231)
UDOT - Neal Christensen, Director of Administrative Services, Utah Department of Transportation
4501 South 2700 West, Salt Lake City, Utah 84119-5996 Tel: 801-965-4032 Fax: 801-965-4338
Fiberoptics: lines have not been installed on any Interstate highway or other highway in the State to date. A Governor's Task Force has presented a series of recommendations to the Legislature on what policy to follow to allow the State to benefit from the value of accommodating these lines. Regulations are being drafted to allow several options for charging, as the Legislature passed permissive legislation in April 1999. Wireless - No activity to date.

**Arizona**
FHWA Contact: Philip Bleyl, Arizona Division, (602) 379-3913 Email: phillip.bleyl@fhwa.dot.gov
ADOT Contact: Sabra Mousavi (602) 255-6840 Email: smousavi@dot.state.az.us
Fiber Optics - Arizona issued a statewide RFP in July 1998. The RFP requested a communications firm(s) to provide communications infrastructure with the Department as a joint user. Two proposals were received. Both were reviewed by the Attorney General's Office for legal sufficiency. They rejected one proposal as non-responsive. The other is now being evaluated. It is expected that the Department will decide how to proceed by the end of the calendar year. To be considered responsive, proposals, at a minimum, had to include private ownership, operation, construction, and maintenance of communications infrastructure while providing the state with capacity and other enhancements in exchange for entrance into highway right-of-way. A fiberoptic communications network was preferred, but other systems would be considered. Much of the selection criteria is based on the number of statewide needs that would be met and on the quality and capacity to be provided. The type of system, capacity, equipment, and other enhancements provided to the state should first focus on the Department's need to expand ITS capabilities (a copy of the plan was made part of the RFP). The most effective proposal would be a plan for a statewide network. However, proposals for only one region or corridor would be considered. Additionally, ADOT made it clear that while it believed that only one proposer would be selected for any specific route, the Department reserved the right to select more than one proposer when it was in the best interest of the state to do so. The proposal also required an explanation of how other entities could be accommodated with in a single system. ADOT's purpose was to ensure competition was not inhibited, while providing the greatest benefit to the state.
Wireless Telecommunications AZ DOT issued a statewide RFP in July of 1996. Three providers responded and are now under Master Lease Agreements. New sites requested by a provider ( including co-location) must be advertised for competing bids. Our turn around time is approximately three weeks from receipt of a letter requesting a site to approval. We have yet to receive a competing proposal, but the law requires a competitive process. Currently we have 22 sites in place. 4 of those are co-locations. We expect to have another 5 Site Agreements signed by the end of the year. We currently have 5 companies under lease with the Department: AT&T Wireless; CellularONE, Sprint PCS, Western Wireless, and US West AirTouch. We have Master Lease Agreements with 4 of the 5 companies (US West prefers to have a separate lease for each site). A Master Lease Agreement sets the basic terms, provisions and restrictions. Each site is agreed to through the use of an Individual Site Agreement. Should the terms of the Site Agreement differ from the Master Agreement, the Site Agreements controls. Additionally, each provider must have local zoning approval and obtain an encroachment permit from the Department. The Department is able to issue a blanket maintenance permit, but prior notification of planned maintenance must be provided to ADOT. Emergency maintenance is reported as soon as possible. This allows our permits office to keep track of all activity, etc. 3 of the existing sites are on ADOT structures. One is on a sign, two are on high-mast light standards. The light standards are designed by Holophane to handle two sets of antennas. The total cost of the poles and construction were paid for by the provider. The poles are the property of the Department, but are maintained by the provider. One of these sites is at the Sunset Point Rest Area on I-17. CellularONE constructed two 120-foot light standards and is on one. The other is the Department's to lease to another provider. When the second pole is leased, the lessee will take over maintenance.

**California**
FHWA Contact: Bill Todd, California Division, (916) 498-5011.
Caltrans Contact (Fiber): Roy Nagy, (916) 654-6076 (Wireless) Lynn Trexel, (916) 654-4807
Fiber Optics lines have not been installed on Interstate highway ROW in California or on any other controlled access Federal-aid highway ROW, except by Caltrans for State purposes and in a few instances by others as

an approved exception to the approved freeway utility accommodation policy. California does have somewhere around 500-600 miles of their own fiber optics in the right-of-way in the southern part of the State. Caltrans is exploring options to develop fiber optics accommodation policy that would permit compensation in some form to Caltrans. Legislative changes would be necessary to revise State Code.
Wireless Telecommunications have been installed on Interstate ROW and on other controlled access Federal-aid highway ROW in accordance with Caltrans "Licensing Process and Siting Guidelines" established for their Telecommunications (Wireless) Licensing Program. Compensation to Caltrans consists of cash based upon type of equipment and geographical location, ranging from $9,900 to $21,000 per site per year. Siting guidelines have been established taking safety, functional, and aesthetic considerations into account. Access to wireless facilities is to be from outside the ROW. The DO has final review/approval authority over all wireless proposals on Federal-aid highways, including construction plans, environmental documents, collocation, and assignments. This and **extensive** related technical information is available through their website - http://www.dot.ca.gov/wireless/.

**Hawaii**
FHWA Contact: Laura Kong, Hawaii Division, (808) 541-2700 ext. 328 or Susan Klekar, Hawaii Division, (808) 541-2700 ext. 309
State Contact: Michael Amuro, HDOT, (808) 692-7332
Fiber Optics: Have been installed at one Interstate location. The installation is for the State's own use, which is for traffic management purposes. The military has one installation on a state route. It links up the military bases through AT&T's HITS program. There is another private provider that traverses over 30 miles of State and City routes. This one installation sometimes runs longitudinal in the right of way and sometimes traverses the roadways. Wireless: All installations are on Oahu and are at each of the tunnels located on H-3, SR 63, and SR 61. All active wireless providers are required to form a consortium. The consortium proposes a plan to develop a coordinated installation. HDOT Right of Way Branch reviews and approves plans. They then issue individual annual leases to each provider. The lease fee charged to each provider is based on a fair market value of the wireless site. Each provider is required to pay a $2,000 security deposit per site. The consortium constructs sites and maintains them. Each provider also pays a pro rata on any utilities used. Mostly they are tapping into HDOT's power source.

**Nevada**
FHWA Contact: Jeff Weinman, Nevada Division (775) 687-5334;
State Contact: Heidi Mireles, NDOT (775) 888-7840
Fiber Optics: three conduits have been installed one of which contains a 100-fiber cable on Interstate (I-80) highway ROW in Nevada. It is within a 20-foot controlled access corridor between California and Utah known as the "Williams Project." A longitudinal, non-exclusive permit has been issued to multiple users for a minimal fee. Nevada is in a "holding pattern" subject to change based on the outcome of this project which is extremely political. Lateral lines are within secondary routes. The Division Office is providing advice to NDOT on this matter. Wireless Communications: status quo since last year(1999). NDOT is continuing to develop policy-facilities have not been installed on any Interstate highway ROW. The Division Office will continue to provide advice to NDOT.

**Alaska**
FHWA Contact Person: Aaron Weston (907) 586-7427
Alaska has not yet had any experience with resource sharing activities.

**Idaho**
FHWA Contact Person: Cathy Satterfield (208) 334-9180 x125
Idaho has not yet had any experience with resource sharing activities.

**Oregon**
FHWA Contact Person: John Gernhouser (503) 587-4708.
Fiber Optics Oregon has accommodated fiber optics within Interstate R/W as an exception to its policy. ODOT is currently considering a policy on resource sharing. There was no compensation other than the normal administrative fee associated with the permit. Locations have either been traverse crossings under the roadway or attached to structures. Wireless Telecommunications facilities (towers, etc.) have not been installed on Interstate or any other controlled access facilities in Oregon.
**During the past year (1999) ODOT adopted the following policies: "Policy for wireless communication facility placement on freeway right-of-way" and "Policy for longitudinal placement of fiber optic lines on freeway right-of-way." The policies were adopted in preparation for ODOT's shared resources**

**effort to obtain a vendor to provide telecommunication services for Intelligent Transportation Systems (ITS) in exchange for access to Oregon Interstate Highway right-of-way on a bartering basis. This effort was termed the "Last Mile". Because of a various complications, ODOT's Last Mile effort is reported to be near abandonment.**

**Washington**
FHWA Contact Person: Jim Leonard (360) 753-9408
WSDOT contact: Al King, Washington Light Lanes, (360)586-4321
Gerry Gallinger, Deputy ROW Director, 360-705-7330.
Fiber Optics -WSDOT developed an RFP to offer fully limited access controlled facilities (including the Interstate)for fiber installation in return for either barter or cash benefits. Use of other highways is anticipated. RFP was issued in November,1998, and the successful party was UCN. They are moving forward rapidly on their telecommunications project, now dubbed "Washington Light Lanes", and started formal conversations with Universal Communication Networks (UCN) today. UCN is planing on fast tracking the project. In March, and perhaps into April, they will be trying to work out the business issues and arrive at an Airspace Lease. Immediately following finalizing that agreement, they anticipate UCN beginning design in earnest, with construction starting on the first pieces by early summer. Design on I-90 is currently planned to begin the first of August this year. Completion of the whole project, I-5, I-90 and I-82, with all appurtenances, is planned by the end of 2001.
Wireless -- WSDOT has a model airspace lease agreement that permits wireless on all highways if highway operations and safety are not compromised. Fee schedule for compensation.

**FOR CORRECTIONS OR ADDITIONS - CONTACT**

**Janis Gramatins**
**FHWA Office of Real Estate Services**
**202-366-2030**
**email: janis.gramatins@fhwa.dot.gov**

**or**

**Paul Scott**
**FHWA Office of Infrastructure**
**202-366-4104**
**email: paul.scott@fhwa.dot.gov**